Xerox Docket No. D/A3533

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Judith M. VANDEWINCKEL et al.	Group Art Unit: 1756
Application No.: 10/743,097	Examiner: C. RODEE
Filed: December 23, 2003	Docket No.: 117545

For: EMULSION AGGREGATION TONER HAVING RHEOLOGICAL AND FLOW PROPERTIES

DECLARATION UNDER 37 C.F.R. §1.132

I, Judith M. Vandewinckel, a citizen of the United States, hereby declare and state:

1. I am a chemical process engineer and have been employed by Xerox Corporation since 1987. I have had a total of 19 years of work and research experience in toners product delivery and toners manufacture. I have work on 10 different color toner product launches which included platform design, research and development, and product launch and manufacturing implementation. I currently am the lead product development engineer for the first chemical process toner manufactured in two Manufacturing plants in Canada.

2. I am a named inventor in the above-captioned patent application. I am familiar with the application and its prosecution.

3. As known in the art, cohesion can be measured using a powder tester. Specifically, the cohesion value is measured by a common and well known method using a Hosokawa Powder Tester, wherein a known amount of toner is placed on the top screen of a three screen stack and vibration is applied for an amount of time. The cohesivity

measurements are conducted in order to evaluate the flowability of the toner or the percent cohesion of the particles as a degree of flowability.

After running the test, the cohesion is known to be calculated by the use of the well known equation 50A + 30B + 10C = cohesion, wherein A is the mass of toner remaining on the top screen, B is the mass of toner remaining on the middle screen and C is the mass of toner remaining on the bottom screen. The Examiner has already been made aware of several references describing this calculation (see, for example, U.S. Patent Nos. 6,673,501 and 6,150,062, and R. Veregin and R. Bartha, Proceedings of IS&T 14th International Congress on Advances in Non-Impact Printing Technologies, page 358-361, 1998, Toronto).

4. The Examiner questions whether the practitioner would have known to use the formula to calculate the cohesion value with screen sizes of 53 μm, 45 μm and 38 μm. As summarized below, there is more than sufficient evidence supporting that one would have known to use the known formula with the screen sizes and test method described in the present specification.

5. First, the specification explains that if all of the 2 gram sample tested remains on the top screen, the cohesion is 100%. The only way to get 100% cohesion with a 2 gram sample is from (50) x (2), or 50A. As such, this alone would confirm use of the formula 50A + 30B + 10C in determining the cohesion value in the present application.

6. Second, it is known in the art to use different screen sizes, depending on different powder properties, and still use the same formula in determining cohesion. For example, the Hosokawa Powder Manual itself (attached) describes the use of different screens for powders with different densities. See page 12 of the Manual, indicating screen sizes of 200 mesh, 100 mesh and 60 mesh for powders of 0.4-0.9 gm/cc bulk density, and page 15 of the Manual, indicating screen sizes of 42, 60 and 100 mesh for lighter powders and screen sizes of 100, 200 and 350 mesh for heavier powders. However, all use the same cohesion

equation in calculating cohesion. Different sizes of powders also necessitate different screen sizes. For example, U.S. Patent No. 6,150,062 uses screen sizes of 45 μm, 38 μm and 26 μm, different from the Manual, but still determining cohesion using the cohesion formula. Also, U.S. Patent No. 6,673,501, referencing R. Veregin and R. Bartha, Proceedings of IS&T 14th International Congress on Advances in Non-Impact Printing Technologies, uses screen sizes of 150, 75 and 45 microns. In the present case, because the powders are < 12 μm, appropriate screen sizes were selected to be 53 μm, 45 μm and 38 μm, as similarly described in U.S. Patents Nos. 6,083,654, 6,850,725 and 6,824,924. Thus, it is known to select different screen sizes for the three screens, depending on different properties of the powders tested, and still use the same cohesion equation.

7. Third, it is known in the art generally that the three screen Hosokawa Powder Test (regardless of screen sizes) gives results from which cohesion is always calculated via 50A + 30B + 10C. In other words, mention of the use of a Hosokawa Powder Tester alone tells one of ordinary skill in the art that cohesion is calculated from the known cohesion equation. The Examiner has provided no evidence of any other formulas that may be used for the calculation of cohesion when using the Hosokawa Powder Tester. One informed of the use of the Hosokawa Powder Tester, the three screen sizes to use and the vibration amplitude will be fully informed as to how to run the test and also how to calculate cohesion (using 50A + 30B + 10C), as such is the only standard cohesion calculation from a Hosokawa Powder Test.

8. As evident from the above, the use of the cohesion equation 50A + 30B + 10C is known for various screen sizes and processing conditions dependent upon the powders evaluated. In the present application, more than sufficient disclosure is given to confirm the use of such an equation with the results obtained from the Hosokawa Powder Tester. The cohesion value as recited in the claims is quite clear to a practitioner in the art.

9. I hereby declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine and/or imprisonment under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing therefrom.

Date: 6-28-06

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